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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,979	03/30/2004	Scott Sibbett	21058/0206803-US0	8637

75172 7590 08/04/2008

Client 21058
c/o DARBY & DARBY P.C.
P.O. BOX 770
CHURCH STREET STATION
NEW YORK, NY 10008-0770

EXAMINER

NOGUEROLA, ALEXANDER STEPHAN

ART UNIT	PAPER NUMBER
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1795

MAIL DATE	DELIVERY MODE
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08/04/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/814,979	SIBBETT, SCOTT	
	Examiner	Art Unit	
	ALEX NOGUEROLA	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/27/08 (RCE) & 6/18/08 (pre-amndt.).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-11 and 13-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-11 and 13-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/18/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment of May 27, 2008 ("Amendment") does not render the application allowable.

Response to Arguments

2. Applicant's arguments filed May 27, 2008 and June 18, 2008 have been fully considered but they are not persuasive.

With regard to the arguments filed May 27, 2008 Applicant turns to Figure 1 as support for and an illustration of fluid flow (in channel 18) other than apparently convective flow. However, paragraph [0018] in the specification states, "... the negative pressure results in the convective pumping of electrolyte in channel 18 from reservoir 12 toward reservoir 16. [emphasis added]" Thus, the new fluid flow of the amendment is actually convective flow.

With regard to the arguments filed June 18, 2008 Applicant states, "If microchannel 122 is coated with a coating that suppresses electroosmosis, ...[emphasis added]" However, Figure 4 shows electroosmotic flow along microchannel 122. Also, in the arguments filed June 18, 2008 Applicant attributes the focusing of charged

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molecules in the channel (channel 118) to the different potentials "++" and "+++".

However, paragraph [0026] of the specification attributes the focusing to convective flow *balanced* by electrophoresis force induced by electrodes 130 and 126. Additionally, Applicant's "pipe" analogy is not persuasive and any way is not suggested by the original disclosure.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-3, 5-11, 12, and 13-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant has amended each of the independent claims (claims 1, 11, 19, and 22) by replacing "convective flow" with -- fluid flow --. No other amendment to the claims has been made.

Convective flow is a type of fluid flow. Thus, to the extent that fluid flow encompasses convective flow the scope of fluid flow is still not enabled for the same reasons set forth in the rejection under 35 USC 112, first paragraph in the Office action of August 31, 2007 and subsequent related remarks in the Office action of January 24, 2008.

To the extent that "fluid flow" includes types of flow other than convective flow these types of flows are also not enabled. Applicant's remarks in the Amendment refers to Figure 1 to explain how fluid flow is to be induced. In particular, Applicant states in his remarks, "The electroosmotic flow from reservoir R2 to reservoir R3 in Figure 1 induces fluid flow in channel 18." However, the specification states, "... the negative pressure results in the convective pumping of electrolyte in channel 18 from reservoir 12 toward reservoir 16. [emphasis added]" That is, the "fluid flow" in independent claims 1, 11, 19, and 22 is (a) either no different than the original convective flow and thus not enabled for the same reasons as convective flow is not enabled, or (b) must be convective flow and so other types of flow can not be created because Applicant's own original disclosure states that the device is configured to produce convective flow in channel 18. Indeed, throughout Applicant's original specification it is clear that the various embodiments are configured so that by causing electrosmotic flow in one or more channels convective flow is created in another channel in fluid communication with the one or more channels. See, for example, paragraphs [0018], [0019], [0024], [0025], [0037], and [0038]. Thus, Applicant's original disclosure only enables producing convective flow as the fluid flow in independent claims 1, 11, 19, and 22. Also note

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Applicant's Second Preliminary Amendment, which was received on June 18, 2008, which points out several times that convective flow is the fluid flow that is generated.

5. Claims 1-3, 5-11, 12, and 13-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. Applicant has amended each of the independent claims (claims 1, 11, 19, and 22) by replacing "convective flow" with -- fluid flow --. No other amendment to the claims has been made. Convective flow is a type of fluid flow. Thus, the expression "fluid flow" presumably contemplates flow of fluid other than caused by convection. However, Applicant's original specification only discloses that by causing electrosmotic flow in one or more channels convective flow is created in another channel in fluid communication with the one or more channels. Indeed, the embodiment of Figure 1, which Applicant's remarks in the Amendment refers to in order to explain how fluid flow is caused, generates convective flow in channel 18 as the fluid flow. See paragraph [0018] in the specification. Moreover, Applicant's Second Preliminary Amendment, which was received on June 18, 2008, Applicant's Second Preliminary Amendment, which was received on June 18, 2008, in discussing other embodiments, points out several times that convective flow is the fluid

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flow that is generated. Thus, to the extent “fluid flow” includes flow other than convective flow, it is new matter.

Status of the Rejections pending since the Advisory action of May 07, 2008

6. The rejections of claims 1-3, 5-11, and 13-25 under 35 U.S.C., first paragraph, are maintained. As discussed above, the expression “fluid flow“, which replaces “convective flow”, includes “convective flow” and thus is still not enabled at least to the extent that “fluid flow” encompasses “convective flow.”

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEX NOGUEROLA whose telephone number is (571) 272-1343. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, NAM NGUYEN can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Alex Noguerola/
Primary Examiner, Art Unit 1795
August 1, 2008